



development, strongly supports the development of sustainable energy sources, including projects applying new technology and commends the Commission for its leadership in undertaking this inquiry. Long View is submitting these comments in response to the issues raised in the NOI. Long View fundamentally supports the concept of “stricter scrutiny” with regard to the review of preliminary permit applications for new technology and the administration of permits issued by the Commission. This concept can, and should, be applied on a programmatic basis which we believe will require modest changes in the preliminary permit process as discussed below.

As the Commission noted in the NOI, the energy generation potential of wave and current power is significant. Yet, many of the technologies that would produce this much needed energy are still in pre-commercial research and development, pilot, or demonstration phases (hereinafter “demonstration”). None has yet been deployed on a commercial scale in the United States, and the potential environmental effects are not well understood. It is this very nature of “new technology” that requires a fresh look at the Commission’s approach to preliminary permitting. No one would ever consider building a demonstration scale conventional dam and powerhouse with the notion to study it to determine whether or not to come back and build a commercial scale (full size dam and powerhouse) development. Thus, the question of whether demonstration activity should be allowed under a preliminary permit has never been relevant in the context of conventional hydropower development. Yet this is precisely the situation faced by many new technology project proponents today; they need the opportunity to demonstrate new technologies in the locations where they would be deployed later on a commercial scale in order to gain sufficient information to make informed decisions

about moving to full-scale developments. Likewise, regulators, resource agencies and other interested stakeholders need the information provided by demonstration efforts to better understand potential risks to resources of concern. It is this fundamental difference between conventional hydropower development and these new technologies that drives the need for a broad review of how the Commission administers its preliminary permitting process.

While there are many factors that can affect the viability of any given new technology or an individual project, Long View believes that the basic regulatory process will play a key role in determining whether new technology projects will have a significant role in future electric energy production in the United States. The Commission can tailor its preliminary permit process to foster the demonstration of new technologies, or it can, through a continuation of existing policies, create an uncertain or cumbersome regulatory environment that will impede the timely development of this potentially significant domestic carbon-free energy source. Long View encourages the Commission to rigorously explore ways to reduce regulatory barriers and provide greater certainty for the development of new technologies and offers these comments to assist the Commission in developing an improved preliminary permit process that will foster the demonstration efforts needed to bring them to commercial scale as quickly as possible. At the same time, we fully understand that a successful preliminary permitting process must be transparent and include appropriate requirements to ensure that such demonstration activities are undertaken with the opportunity for public comment and an environmental review commensurate with the scope of any in-water activity planned during the term of the permit.

The Commission's rules governing preliminary permits have remained essentially unchanged for 20 years and predate the recent emergence of new technologies. They were developed, and remain appropriate, for evaluating potential conventional hydropower projects on the nation's rivers and streams. However, as the NOI recognizes, they may not be applicable to projects proposing to use new technologies. In addition, the current preliminary permit rules predate the manner in which licensing activities, in particular pre-license application efforts, are conducted today under all three of the available licensing processes, traditional, alternative and integrated. As a result, there are aspects of the preliminary permit program that do not mesh well with the current realities of the Commission's licensing requirements and processes.

Long View urges the Commission to initiate a thorough review of its preliminary permitting procedures as they apply to new technologies and to consider how to modify the permitting process so that it is more responsive to the needs of projects proposing to use new technology. In the spirit of instigating innovative thinking, Long View offers the following ideas regarding potential modifications to the preliminary permit process for new technologies.

### **Basic Objectives of Preliminary Permitting for New Technologies**

Long View believes that to support the commercial development of new technology projects as an integral part of the Nation's energy mix, the Commission's preliminary permit process should be reexamined to ensure that it can meet the following basic objectives:

- Encourage fair competition among qualified developers for viable sites;

- Employ rigorous requirements for preliminary permit applications, while remaining mindful that these are the early stages of a nascent industry;
- Require that holders of preliminary permits demonstrate substantive progress toward the preparation of a license application during the term of the permit;
- Facilitate demonstration efforts by authorizing permittees to evaluate the technological details of their designs as well as the potential environmental effects of deployment through on-site activities;
- Require that information regarding environmental effects developed during any demonstration efforts be shared with the Commission and other interested parties, while taking adequate safeguards regarding information of a proprietary nature; and
- Address the potential disconnect between the statutory 36-month limit on permit terms and the time needed to complete activities in support of filing a license application.

As noted in the NOI, Section 4(f) of the Federal Power Act authorizes the Commission to issue preliminary permits for the purpose of enabling prospective license applicants to secure the data and perform the acts required by FPA section 9, which in turn sets forth the material that must accompany an application for license. However current Commission policy interprets this statutory authority in a fashion that excludes any “construction” from occurring under the permit. While such an interpretation has served the Commission well with regard to conventional hydropower development – again, no one builds “test” dams and powerhouses – this creates a daunting situation for new technologies, where the ability to evaluate the feasibility of equipment and the

potential effects of deployment is essential to developing the basic information needed to support a license application.

### **Benefits of Authoring New Technology Demonstration**

Long View sees significant benefits from the Commission revising its preliminary permitting process to explicitly allow demonstration activity related to new technology under a preliminary permit:

- Eliminate the current “catch-22” of requiring a potential license applicant to develop the information required for a license application, but refusing to authorize any in-water activities that might be needed to demonstrate technology on site to generate the needed information;
- Eliminate the potential conflicts that could arise from one developer locating in-water demonstration technology within a valid preliminary permit area of another developer due to the Commission’s hands-off approach to authorizing the demonstration of new technology;
- Promote the appropriate evaluation of in-water demonstration activities for both technological efficacy as well as potential environmental effects; and
- Provide the necessary authority to require proper decommissioning, removal and restoration activities related to in-water demonstration technology should a development license ultimately not be issued.

The authorization of in-water demonstration activities by a preliminary permit would be a clear indication that the Commission is allowing this activity to occur within its oversight. A permit holder would still be required to obtain any required permission from the underlying landholder, which in most instances would be a state or federal

agency, and also whatever other federal, state, or local permits might be required for the particular in-water activities being proposed. This need for acquiring authorizations in addition to that of the Commission is nothing new, as it is commonplace for permit and license applicants to obtain fish collection permits and authorizations from landowners to install equipment needed to collect information needed for conventional hydropower license applications.

All of the components listed above are needed if the Commission is to allow the demonstration of new technology under a preliminary permit. This “cradle to grave” approach allows the Commission to: 1) fully understand the approach to be taken by the permittee to install demonstration technology, 2) ensure that the permittee makes genuine progress towards a license application, 3) take full advantage of new information developed under the permit in the Commission’s NEPA review of the ultimate license application, and 4) ensure the Commission’s ability to require proper removal of demonstration facilities should that become necessary.

Long View also encourages the Commission to take fully into consideration the consultation and information development requirements of its licensing processes as it evaluates changes to its preliminary permit requirements for new technologies.

Ultimately, the Commission’s preliminary permit process must realistically reflect the expectations placed on a permittee in terms of pre-license application activity. While outside the purview of this particular inquiry, Long View would be happy to work with Commission staff to evaluate how to most effectively mesh the preliminary permitting and licensing requirements as they apply to new technologies.

## **Preliminary Permitting for New Technology Projects – A New Approach**

In an effort to assist the Commission in evaluating its preliminary permitting process as it relates to new technologies, Long View is providing herein a comprehensive alternative process, starting from the requirements for a preliminary permit application through the final disposition of issued permits. While understandably there may be nuances requiring more in-depth analysis, Long View believes it is helpful to first step away from focusing initially on reasons why something may not be possible and rather to think about what might be helpful in addressing the objectives outlined earlier.

The following proposal is based on the explicit presumption that activity related to the demonstration of new technologies can and should be allowed under a preliminary permit. For the Commission to expect a permittee to take all necessary steps to prepare a license application for a new technology project but refuse to authorize demonstration activity under the preliminary permit seems counterproductive to fostering the development of these emerging technologies.

### A Two-Tiered Approach

Not every preliminary permit application will contain proposed in-water activity and therefore two basic paths for obtaining a preliminary permit are needed. Thus a revamped preliminary permit process for new technologies would include the opportunity to file applications with or without proposed in-water demonstration activity. As outlined below, proposals including in-water demonstration activities would need to be supported by additional information and undergo a more rigorous review. The basic premise is that any Commission authorization of in-water demonstration technology would need to be supported by a NEPA review and related comment opportunity.

### What Qualifies as Demonstration Activity

An important policy question associated with allowing some in-water activity is how to define the type and extent of activity that is allowable, versus activity that is more appropriately reviewed and authorized as part of a “development” in a licensing proceeding. While this distinction may at first seem difficult to define, in practice there will be no incentive for an entity to delay the full commercial deployment of its technology. Thus there is a built-in incentive to complete the demonstration work necessary to prove up a technology and to not continue pre-commercial activities any longer than necessary. Still, the Commission may want to consider establishing some limits on the scale of in-water activity allowed under a preliminary permit. One option would be for the Commission to set a limit on the size of demonstration activities that can occur under a preliminary permit (e.g., limiting the number of units and/or capacity). Long View recommends that the Commission reach out to the technology developers to gain information on expected sizes of demonstration scale units before establishing any specific limits. While a 1.5 MW limit might be acceptable for 250 kW test units (thus allowing six units to be installed and evaluated), it might not allow the necessary flexibility for a technology that needs to be tested at a 750 kW scale (allowing only two test units).

As discussed below, the ability to demonstrate new technology under a preliminary permit is needed not only for evaluating the technology but also for obtaining information on potential environmental effects of the test installations. Indeed, allowing sufficient numbers of test units to allow collection of valid environmental data could be the overriding factor in establishing limits. There is a push-pull in play here between

doing enough work during the permit term to support the license application, while not allowing unnecessary in-water activity that would require excessive deliberation by the Commission.

#### Contents of Preliminary Permit Applications

A key question is how rigorous a standard should be set for the content of a preliminary permit application. Care should be taken that the Commission not inadvertently eliminate an applicant that, for example, is qualified financially but may not have identified a specific technology.

The Commission should establish guidance on minimum information thresholds for the following components of a preliminary permit application for new technologies:

- a. Rationale for size of requested permit area
- b. Description of technology to be evaluated (if any)
- c. Financial capabilities
- d. Schedule for activities during the preliminary permit term

### What Constitutes an Appropriate Permit Area?

To address legitimate concerns regarding site banking, preliminary permit applicants should be required to clearly define a limited, discrete geographic area in which the proposed new technology project would be located. Long View does not believe that establishing an inflexible limit on the size of the permit area is an appropriate solution to these concerns. Rather, an applicant should be required to present a clear rationale for its requested permit area in its application that takes into account such factors as the specific technology being considered, the ultimate proposed build-out capacity of the proposed project, and a conservative spacing plan for the generating units. An applicant should also be allowed to request a modest amount of additional area that would allow the ultimate project layout to be modified in response to information generated during the permit term. Ultimately, the actual project area would likely be more narrowly defined in any license issued for the proposed development, thus freeing up any remaining permit area for other potential permittees. Applicants could seek permits for more than one proposed project, but their ability to do so would depend upon their ability to demonstrate financial capability to simultaneously pursue all proposed projects, as discussed below.

### Information Regarding Technology

Permit applicants should be required to identify with some specificity the technology that is planned for the ultimate commercial development of the site. As noted above, this information will be integral to a determination of how large a permit area should be authorized by the Commission. In addition, it will be critical for a permit application to identify the specific technology that may be proposed for in-water

demonstration during the permit term. This information will be essential for the consultation and environmental review of demonstration technology as discussed further below. Long View can see no reason why an applicant would be limited to demonstrating a single technology in the permit area, so long as all the requisite information is provided in the permit application for each technology.

Applicants unable to provide this level of information may not be prepared to proceed with development, which could prevent the site from being used by other developers who are better prepared to proceed. Nonetheless, the threshold for the technical description of a new technology project should remain relatively low to promote innovation and competition and because evaluation of alternate technologies may be a critical component of the preliminary permit work plan.

#### Financial Capability

The permit application guidance should require a more detailed and substantial demonstration of the applicant's financial capability to undertake the activities proposed during the term of the requested permit. This is particularly important for applications that contain proposed demonstration activities. The Commission should not unduly limit the ways in which financial capability is demonstrated. For example, applicants should be able to make a satisfactory demonstration by reference to corporate filings, annual reports, or published bond ratings. The existence of a grant agreement might also provide the necessary demonstration.

In scrutinizing the financial capability of permit applicants, the Commission should also be sure to consider whether the applicant has applied for multiple permits, and whether it has made an independent showing of financial capability in each case.

The exclusive rights conferred by a preliminary permit should only be granted if there is a high probability that the proposed developer can successfully undertake the necessary activities leading to the preparation of a license application.

#### Detailed Plan and Schedule

The Commission's application guidance should include a requirement for a detailed plan and schedule for the activities that will be undertaken to study the feasibility of a proposed project, regardless of whether the permittee is planning any in-water activities. The Commission's requirements should include the specific information that must be included in the plan and schedule. The plan and schedule should include, at a minimum, the six-month reports required of all permittees, and should specify, for each report, additional milestones that are to be achieved and reported on for each semi-annual period. Consideration should be given to establishing a minimum number of milestones to encourage progress towards the development of a license application.

Currently, the Commission requires that a plan and schedule be filed within 45 days of permit issuance and that the Preliminary Application (PAD) and Notice of Intent (NOI) to seek a license be filed within one year of permit issuance. These are reasonable expectations and should provide some assurance that progress is being made towards the filing of a license application. The requirements for a PAD, regardless of which licensing process is being used, include providing a process plan and schedule for significant activity through the filing of the license application. This plan and schedule must include all pre-application activity including timeframes for pre-filing consultation, information gathering, and conducting studies. Requiring a permittee to report on progress towards

meeting this subsequent schedule in its progress reports would be an additional way of ensuring that a diligent effort is being made towards the filing of the license application.

The Commission should consider moving the requirement for the initial plan and schedule into the application for a preliminary permit. This would expedite the application process, provide an additional demonstration of an applicant's capabilities (i.e., raise the bar somewhat), and also free up valuable time in the permit term.

#### Additional Requirements for Demonstration Proposals

Additional information requirements will be necessary for a permit application proposing demonstration related activities during the permit term. For preliminary permit applications including demonstration activity, the application will out of necessity provide information to support the Commission's NEPA analysis, e.g., information on staging, installation, servicing, monitoring, decommissioning, and restoration activities. Again, the underlying premise is that the Commission should consider actual in-water activity under a preliminary permit based on a review of the potential effects of the demonstration installation. Thus, some level of specificity with regard to proposed in-water activities will need to be provided to allow the Commission to meet its NEPA obligations.

Public notice requirements would out of necessity be different for applications containing proposed in-water activity from those that do not. The public notice for an application without any proposed demonstration activity would be similar to current requirements. However, a public notice for an application with proposed in-water activity would include information on the proposed activity and would also serve as the NEPA scoping document for the environmental analysis that would be conducted on an

application containing the proposed in-water activity. The objective of using the public notice as the NEPA scoping document is to keep the preliminary permit process as streamlined as possible for applications with proposed demonstration activity. Given the modest extent of in-water demonstration activity that is likely to be proposed under preliminary permit applications, there appears to be little value in issuing separate notices of the application being filed and of the initiation of the Commission's NEPA review.

An essential ingredient to the success of a preliminary permit program for new technologies will be that the Commission's environmental review for applications containing in-water demonstration activity is commensurate with the scope of the proposed action, while effectively addressing any agency, tribal and public comments received. Commission guidance should reflect an overriding policy that the NEPA review should be focused on the specifics of the applicant's proposed in-water demonstration activities. The NEPA analysis should also evaluate the potential for the proposed in-water activities to generate environmental information that will be helpful in assessing the potential effects of commercial scale development, should a project progress to the application for, and issuance of, a license. Applicants, agencies, other interested parties and the Commission should all appreciate the larger and longer-term benefits that can accrue from new information that will be fostered through an expeditious, focused evaluation of demonstration activities under preliminary permits.

### **Reporting and Commission Oversight**

As noted, preliminary permits already contain a requirement to file progress reports every six months; they also provide that the permit may be canceled for failure to prosecute the permit activities diligently or for good cause. These permit conditions

provide sufficient authority for the Commission to ensure that new technology permittees are carrying out the activities committed to in their applications and that they are meeting the milestones that have been established. While there are certain to be delays and changes in plans, which an applicant can explain in its progress reports, the failure or inability to meet the self-prescribed deadlines would provide good cause to cancel a permit and thus allow another developer to have access to the site.

Tracking progress according to the filed plan and schedule can be one of the most valuable tools for the Commission in ensuring that diligent effort is being demonstrated. Thus, a “strict scrutiny” standard can and should be applied not only to the content of the preliminary permit application itself, but also for performance during the term of the permit.

#### Substantive Requirements for Progress Reports

The Commission should employ substantive requirements for what should be contained in semi-annual progress reports. At a minimum, the progress reports should be required to show actual progress in implementing the more detailed plan required in the PAD, with justification required for when the schedule has not been met and a requirement to identify measures for bringing the effort back in line with the plan. It seems imperative that if the Commission wants to be in a position to determine whether to maintain or cancel a permit, then it has to have the information required to do so.

In tandem with the progress reporting, it could be advantageous to include more rigorous progress requirements, for example, requiring that the permittee’s plan/schedule include specific milestones that must be met, for example:

- a. Compiling existing information to support the development of the PAD by V months after permit issuance;
- b. NOI/PAD within an additional W months;
- c. Study plan within an additional X months;
- d. Study reporting within an additional Y months;
- e. Draft license application/Preliminary licensing proposal within an additional Z months.

Such an approach would require greater effort on the part of the permittee and greater effort/oversight by Commission staff, but commitments to meeting agreed to milestones would likely have significantly more value than the standard semi-annual reports alone in generating progress towards the filing of license applications. With more strict reliance on schedule milestones to judge progress, some discretion would have to be available to Commission staff in situations where factors beyond the control of the permittee have contributed to the inability to stay on schedule.

#### Information to Support Decisions to Cancel Permits

Current regulations require notice and opportunity for hearing prior to cancellation of a preliminary permit. Although permit cancellation has rarely occurred for conventional hydropower proposals, it seems plausible that permit cancellation may become a necessary action for new technologies. Consistent with the requirements proposed herein for higher scrutiny on application requirements and performance under issued permits, it will be important for the Commission to ensure that its staff members have been provided sufficient guidance as to how to build an appropriate record to support a recommendation for the possible cancellation of a permit.

### Provisions for Subsequent Permits

Despite the best of intentions and actions on the part of a permittee there will be circumstances when a license application cannot be filed by the time that the 36-month permit term expires. Given that the 36-month limit on a permit term is statutory in nature it seems appropriate for the Commission to define how an application for a subsequent permit from a permittee in good standing will be processed. In particular, the Commission should establish criteria to be used by staff to evaluate whether or not to recommend issuance of a subsequent permit and as importantly how to determine the length of the subsequent permit term. In cases where a permittee seeks a subsequent permit, a key element of its application should be the demonstration that it has met its obligations pursuant to the first permit in a timely and substantive fashion. Similarly, this demonstration would be a key element of the Commission's decision to grant a subsequent permit.

This is important given concerns that have been raised regarding the potential for de facto site banking. The concept presented here is that the Commission should create the opportunity for a permittee to apply for a subsequent permit, but there should be a high standard for being considered eligible for a subsequent permit. The record of activity under the initial permit should be evaluated by Commission staff for evidence of a bona fide effort on the part of the permittee toward filing a license application, e.g., filing of an NOI/PAD, substantial consultation efforts and pre-filing study activity that could be the basis for achieving such a threshold.

Given the increased obligations on the permittee that are envisioned in this proposal, and the current requirements that must be met under any of the available

licensing processes for the filing of a complete license application, it seems unwise to create a situation where a permittee that has diligently pursued activity under its permit to the full satisfaction of the Commission, but ends up short of being able to file its license application within the 36-month preliminary permit term, should suffer the ultimate punishment of having its priority for license jeopardized. At the same time it seems reasonable that the length of any subsequent permit term should be limited to that amount of time needed for the permittee to complete and file its license application, which in most if not all cases should be something significantly short of an additional 36 months. The Commission should be able to determine the amount of additional time needed based on the information that has been provided over the course of the initial permit term relative to the schedule of activities/milestones submitted by the permittee. The length of any subsequent permit term should be limited to that determined by Commission staff to be necessary to complete remaining activity to allow filing of a license application. This should address any concerns regarding the potential for site banking by obtaining a subsequent permit.

Commission staff's review would also include evaluating the level of activity by the permittee under the initial permit term to determine whether the permittee should be given "preference" for a subsequent permit relative to any competing, non-municipal preliminary permit applications filed in response to the public notice of the request for a subsequent permit.

Other possible ways have been postulated to create sufficient time, beyond an initial 36-month permit term, for a permittee to complete the preparation and filing of a license application while preserving the permittee's priority for a license. The approach

proposed here has the advantage of clearly keeping the permittee, and any demonstration activity that might be ongoing under the initial permit, under FERC's jurisdiction until the license application is filed and the post-filing licensing process is initiated.

### **Final Disposition of Demonstration Technology**

Under most circumstances demonstration activity initiated under a preliminary permit term should be allowed to continue until a licensing decision is reached. At that time, the development activity could change from the demonstration phase to the commercial phase. However, there is the potential that the Commission may determine to reject the license application, leaving in question the final disposition of any in-water demonstration facilities. The Commission should consider developing new permit condition language that would address this type of situation and include requirements that must be met by the permittee to remove any demonstration equipment and restore the site to its pre-development condition, should that become necessary.

### **Sale of Power from Demonstration Activities**

Building on the basic theme that demonstration activities should be authorized under preliminary permits, Long View also believes that the Commission should allow permit holders with new technology demonstration activities to sell any power that is generated as a byproduct of their demonstration efforts. Long View believes that this proposal is consistent with the reasoning of Commissioner Kelly in her concurrence in *Verdant Power*, in which she concluded that demonstration activities during a preliminary permit term do not amount to the development of electric power under Section 23(b) of the Power Act. Imposing a requirement that a permittee undertake demonstration activities but not sell the power generated by those activities is

counterproductive, and it is inconsistent with the Commission's stated desire to ensure the viability of applicants for preliminary permits for new technology projects.

An avenue that the Commission may want to consider is requiring that revenue from any power sales be used to fund and carry out the demonstration activities authorized by the permit, including but not limited to studies. This would be consistent with an overall permitting process that facilitates the pursuit of demonstration activities, generates information about their operations and potential environmental effects, and improves the ability of the Commission, agencies and other interested parties to thoroughly evaluate proposals that ultimately come before the Commission in applications for licenses.

#### **Other Options for the Commission's Consideration**

There may be other possible options, e.g., the Commission conducting a programmatic NEPA assessment for demonstration activities under preliminary permits that would assist in creating a regulatory environment more conducive to supporting this emerging industry. Long View encourages the Commission to explore other avenues; however, Long View would caution that undue delays in providing clear guidance regarding preliminary permitting requirements for new technology proposals can have a deleterious effect on near-term demonstration activity.

#### **Conclusion**

Long View commends the Commission for its commitment to fostering new technologies, as illustrated by the initiation of this NOI. Long View recognizes that this proposal will require greater effort by permit applicants to provide information, particularly in the case of proposals containing in-water demonstration activities.

Likewise, resource agencies and other interested parties will have to increase their efforts to participate in more substantive Commission proceedings on permit applications. Thus, it would not be surprising if an increase in Commission staff resources to administer such a revamped permitting process for new technology projects will also be required. However, these additional resource needs should in reality be modest and commensurate with the benefits that will be derived from a more effective preliminary permitting process for new technologies.

Long View is appreciative of the opportunity to provide these comments and stands ready to work with the Commission and other stakeholders to develop an appropriate preliminary permit process for new technologies. We have developed more detailed materials, including a process flowchart and accompanying notes, regarding the proposal presented within these comments and would be pleased to have the opportunity to review them with appropriate individuals at the Commission should that be of interest.

Respectfully submitted,

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